

IN THE CLAIMS:

Please cancel Claims 1-85, without prejudice or disclaimer of subject matter, and add new Claims 86-107. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application.

Claims 1-85 (canceled)

Claim 86 (new): A method of data packet transmission from a first network to a second network via a communication device interconnecting the first and second networks, the first network being a communication bus transporting data packets in isochronous and asynchronous modes, the second network being a packet-switching network transporting data packets in connected and non-connected modes, the method comprising the steps of:

reserving resources (adapted to a receiving mode) in which data packets are received from the first network; and

transmitting data packets to the second network in a mode associated with the receiving mode by using the reserved resources,

wherein the isochronous mode is associated with the connected mode, and the asynchronous mode is associated with the non-connected mode.

Claim 87 (new): A method according to claim 86, wherein, in a case of transmission of data packets in the isochronous mode associated with the connected mode,

the step of reserving resources includes the step of reserving internal resources of the communication device and reserving resources on the second network.

Claim 88 (new): A method according to claim 87, wherein the step of reserving internal resources of the communication device is performed based on the resources reserved on the second network.

Claim 89 (new): A method according to claim 87, wherein the step of reserving resources is performed before receiving data packets from the first network.

Claim 90 (new): A method according to claim 87, wherein the internal resources comprise one or more memory areas.

Claim 91 (new): A method according to claim 90, wherein the step of reserving internal resources includes reserving at least one of the one or more memory areas based on the resources reserved on the second network.

Claim 92 (new): A method according to claim 86, wherein, in a case of transmission of data packets in the asynchronous mode associated with the non-connected mode, the step of reserving resources includes the step of reserving internal resources of the communication device.

Claim 93 (new): A method according to claim 92, wherein the step of reserving resources is performed after receiving data packets from the first network.

Claim 94 (new): A method according to claim 92, wherein the internal resources comprise one or more memory areas.

Claim 95 (new): A method according to claim 94, wherein the communication device comprises a processing unit that is associated with the one or more memory areas, and

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said method further comprises the step of storing data packets in an intermediate storage so that the communication device may commence receiving data even when the processing unit is not able to process data immediately.

Claim 96 (new): A method according to claim 95, wherein said method further comprises the step of transferring data packets between the intermediate storage and at least one of the one or more memory areas.

Claim ~~97~~ (new): A communication device interconnecting first and second networks, for transferring data packets from the first network to the second network, the communication device interconnecting the two networks, the first networks being a communication bus transporting data packets in isochronous and asynchronous modes, the second network being a packet-switching network transporting data packets in connected

and non-connected modes, said communication device comprising:

reserving means for reserving resources adapted to a receiving mode in which data packets are received from the first network; and

transmitting means for transmitting data packets to the second network in a mode associated with the receiving mode by using the reserved resources,

wherein the isochronous mode is associated with the connected mode, and the asynchronous mode is associated with the non-connected mode.

Claim 98 (new): A communication device according to claim 97, wherein, in a case of transmission of data packets in the isochronous mode associated with the connected mode, the resources reserved by said reserving means include internal resources of said communication device and resources on the second network.

Claim 99 (new): A communication device according to claim 98, wherein the reserving means reserves the internal resources based on the second network.

Claim 100 (new): A communication device according to claim 98, wherein the internal resources comprise one or more memory areas.

Claim 101 (new): A communication device according to claim 100, wherein the reserving means reserve at least one of the one or more memory areas based on the second network.

Claim 102 (new): A communication device according to claim 97, wherein, in a case of transmission of data packets in the asynchronous mode associated with the non-connected mode, the resources reserved by said reserving means include internal resources of said communication device.

Claim 103 (new): A communication device according to claim 102, wherein the internal resources comprise one or more memory areas.

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Cont.* Claim 104 (new): A communication device according to claim 103, further comprising:

a processing unit that is associated with the one or more memory areas; and
storage means for storing data packets in an intermediate storage so that said communication device may commence receiving data even when said processing unit is not able to process data immediately.

Claim 105 (new): A communication device according to claim 104, further comprising sending means for sending data packets between the intermediate storage and at least one of the one or more memory areas.

Claim 106 (new): A computer-readable storage medium storing code for implementing the method of claim 86.

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Claim 107 (new): A program product embodying a program comprising sequences of instructions for causing a programmable device to implement the method of claim 86, when the program is run in the programmable device.
